

09896363.062801
T03290'E9E96860

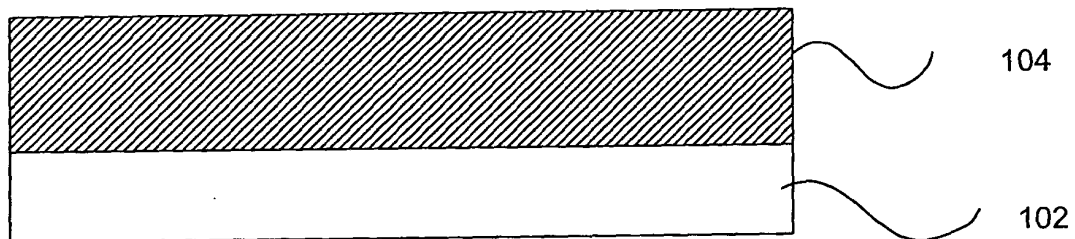


FIG. 1

FIG. 2A

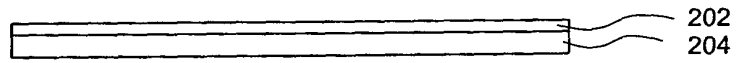


FIG. 2B



FIG. 2C

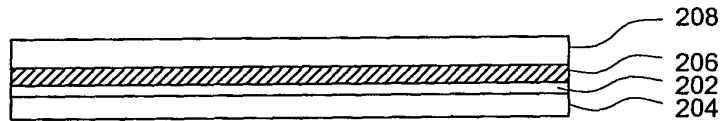


FIG. 2D

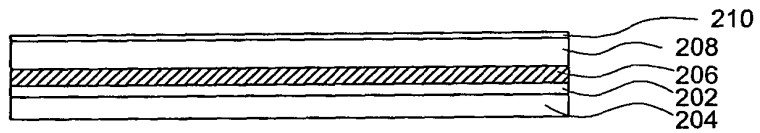


FIG. 2E

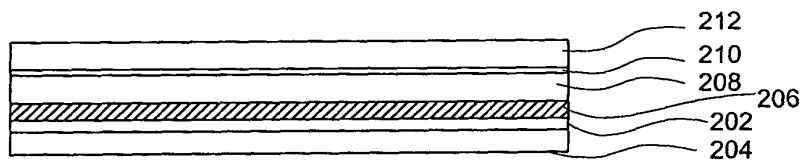


FIG. 2F

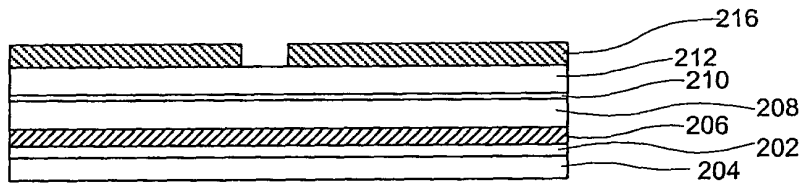


FIG. 2G

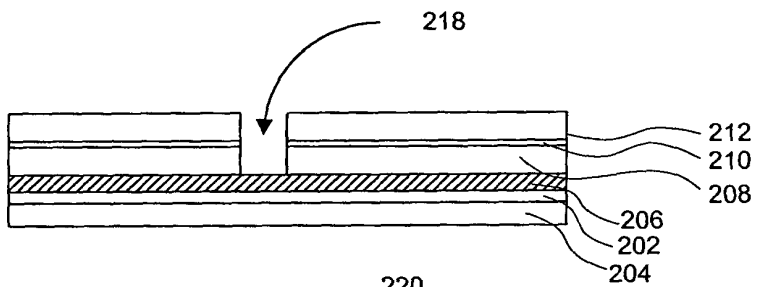
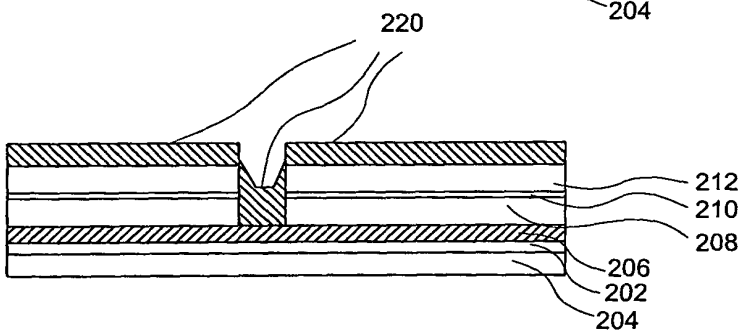


FIG. 2H



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FIG. 2I

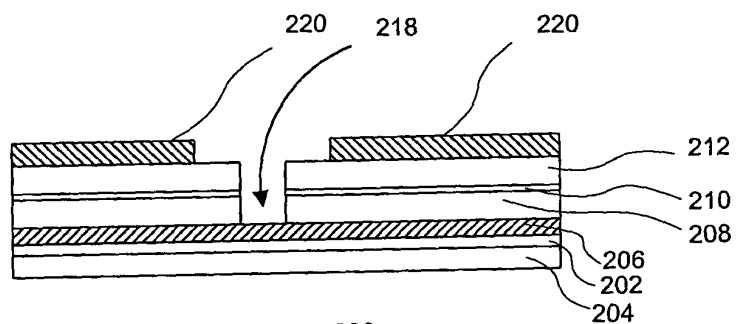


FIG. 2J

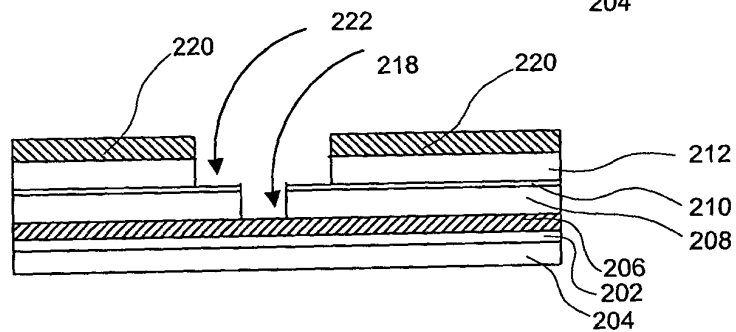


FIG. 2F'

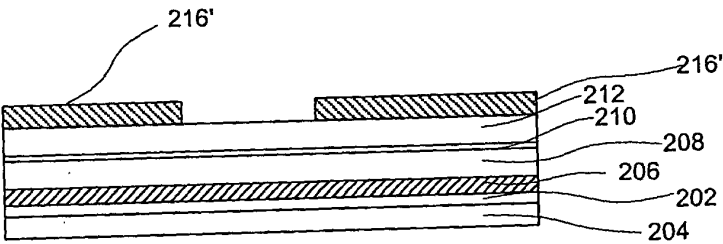


FIG. 2G'

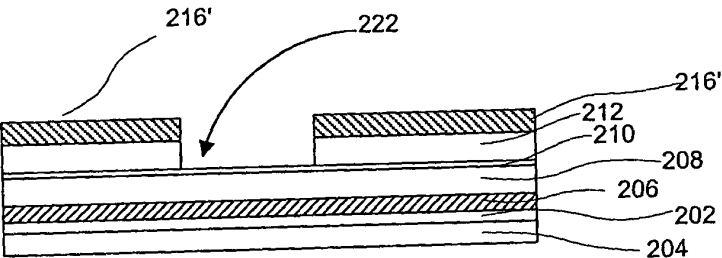


FIG. 2H'

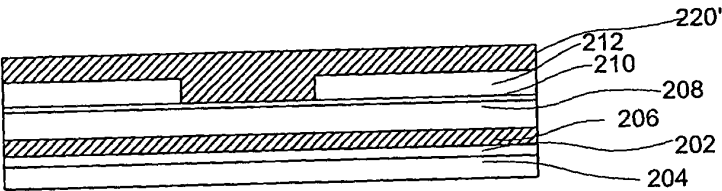


FIG. 2I'

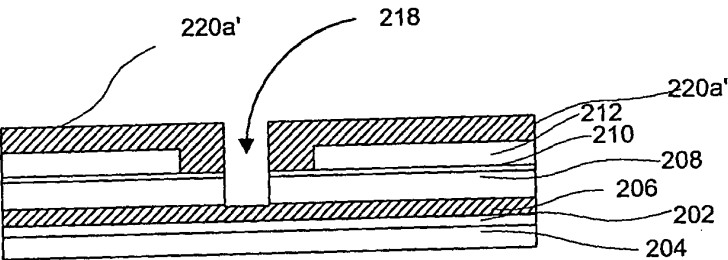


FIG. 2E''

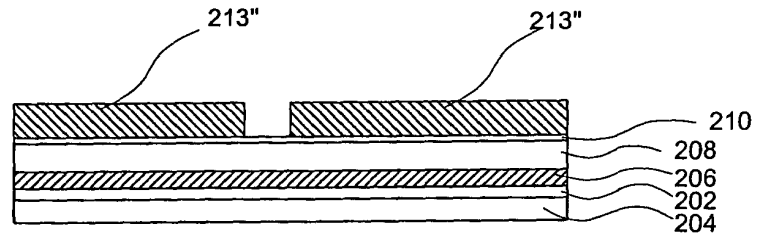


FIG. 2F''

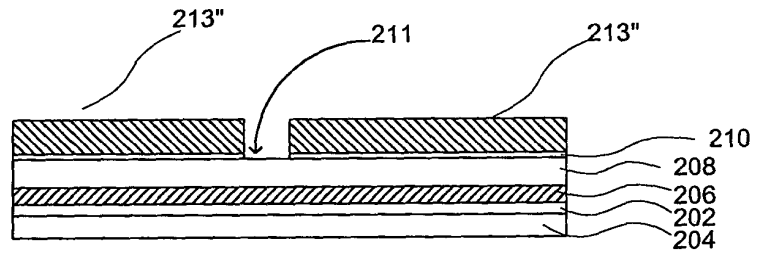


FIG. 2G''

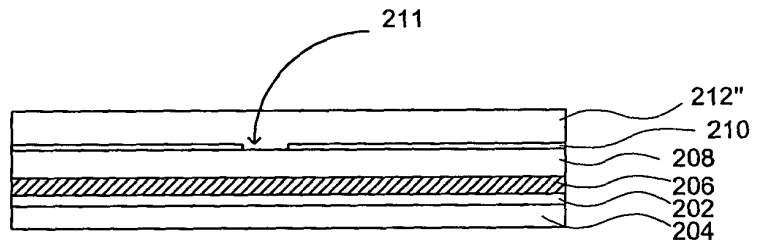
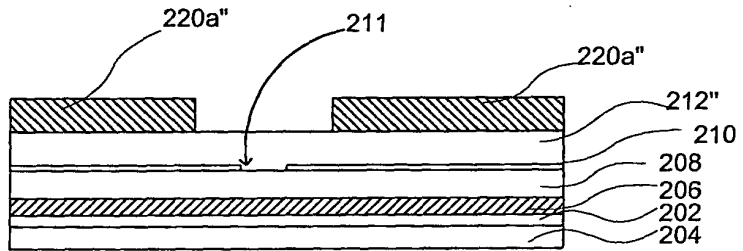


FIG. 2H''



FOB290" E9E96860

Resist poisoning using SiCN incorporated SiC barrier film

After trench patterning

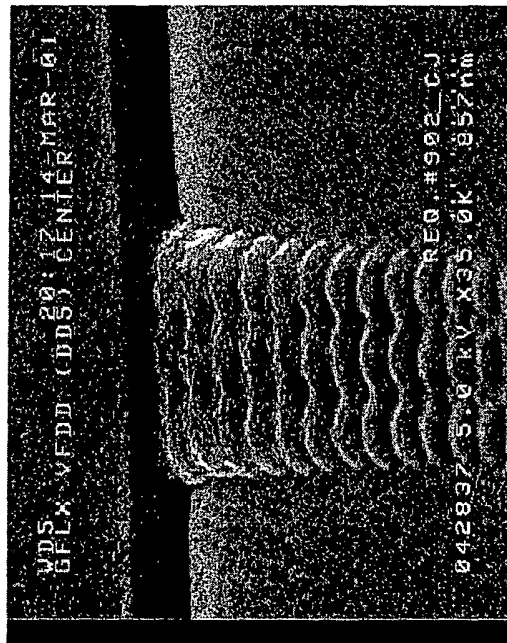


FIG. 3A

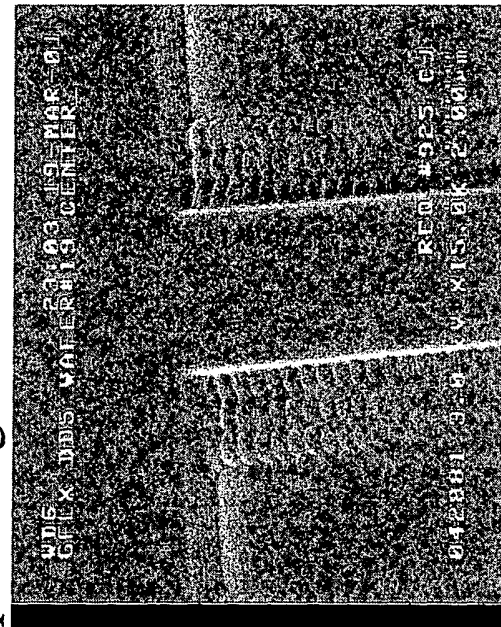


FIG. 3B

After trench etch

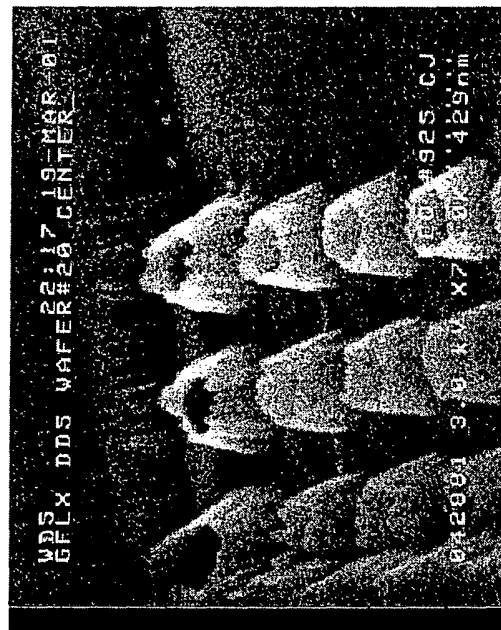


FIG. 3C

TOP290" E9E96860

Resist poison was solved by using 2-layer barrier stack in which top layer is N-free.

After trench patterning

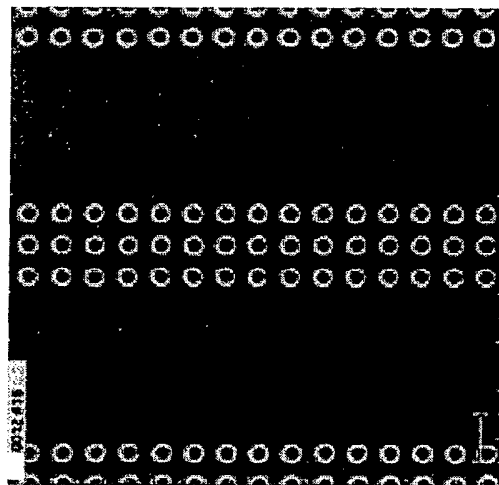


FIG 4A

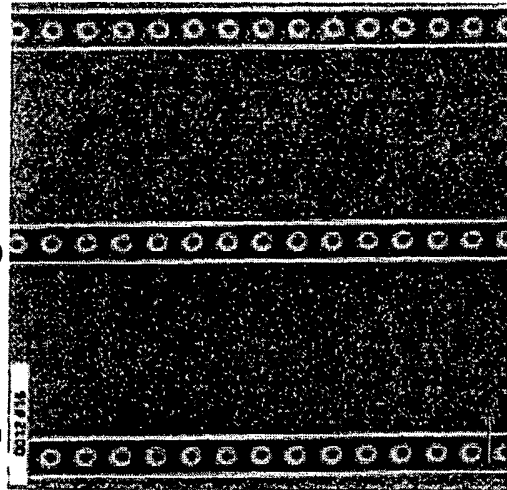


FIG 4B

After trench etch

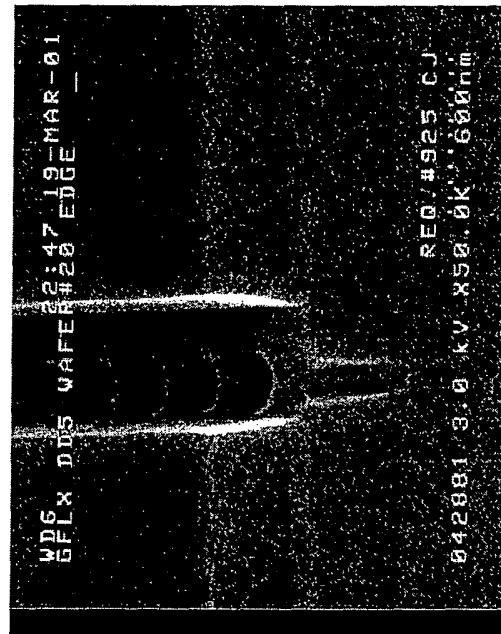


FIG 4C